**Animating Project-Based Learning through Strategic Sponsor Partnerships**

Mike Elmes, Bob Hersh, Scott Jiusto

SL 406

This workshop will explore how project-based learning can be enriched by partnering with external project “sponsors,” individuals and organizations drawn from non-profit, government, business, community, cultural and other perspectives. The workshop will present a range of partnership strategies and ask participants to consider key questions both generically and in the context of their own programs: Why involve sponsors in a course or student field experience? How involved should sponsors be in project design, execution, assessment and follow-through? What might students get from involving sponsors? What will sponsors get? What are sponsors expected to invest in terms of time, money, thought, and logistical support? What kind of risks arise with different partnership models and how can they be managed? How can faculty foster successful outcomes for all involved? And what broader implications might partnerships have for how your program is designed and administered?

**Project-Based Learning in the STEM Classroom**

Kris Billiar, Lauren Mathews

SL 402

This interactive workshop will guide you in developing a plan for integrating project-based learning in a STEM class. We will begin with a discussion of how project-based learning relates to standard teaching practices in your discipline, and will consider how a project-based approach could be used to achieve your course learning objectives. We will also discuss what constitutes an “authentic” problem both in general and in your discipline, with workshop participants outlining and sharing potential examples of such problems that could be addressed in their courses. Finally, we will discuss approaches for scaffolding the project experience and consider assessment tools and strategies for evaluating individual and team learning outcomes.

**Beginning with the End in Mind: Designing Project-Based Learning Experiences to Develop Specific Skills and Abilities**

Rick Vaz

SL 411

This interactive session will lead participants through a multi-step process to design effective project-based learning experiences. First, we will identify the skills and abilities we want our students to gain through project work – what do we want them to be able to do? Second, we will determine what evidence we seek – how will we know if students develop those skills and abilities? Third, we will envision learning experiences that are designed to produce that evidence – what sort of assignments and activities and feedback will move students in
the desired directions? Finally, we will consider what obstacles we might face in implementing those learning experiences, as well as what support mechanisms can help ensure success.

**Project-Based Learning as an Integrative Senior Level Experience in the Major**

David DiBiasio, Destin Heilman

HL 154

This workshop will examine the design and implementation of PBL-based integrative experiences at the senior level. Such experiences can be course-based but may also be standalone experiential activities. These can be individual or team-based and might include research, design, or performance-based activities. We will explore connecting the design of the activity to discipline-specific learning outcomes, and assessing student performance at the process and product levels. The session will be interactive with some time to engage attendees from similar disciplines in small groups.

**Concurrent Sessions 2**

*Thursday, June 25, 2:00 – 3:15 pm*

**Project-Based Learning as a Curricular/Programmatic/Co-Curricular Pathway**

Terry Rhodes

SL 411

We are accustomed to the educational institution creating learning pathways in terms of syllabi, curricula, and course sequences. Perhaps we are too accustomed to that orientation. Because, implicit in the phrase “learning pathways” is the idea that the professor and other institutional educators, usually multiple individuals and offices, will scaffold learning for the student. This workshop will examine through a logic model approach how starting with the expected learning outcomes at the end of each participant’s program/project can reveal possibilities for deeper and broader, and hopefully more successful learning for all participating students across curricular, co-curricular and community-based learning.

**Engaging and Supporting Faculty to Use Project-Based Learning**

Chrys Demetry

SL 406

Significant use of project-based learning in courses and curricula calls upon a set of teaching practices and skills that may be unfamiliar to many faculty members. In addition, the roles and expectations of instructors and students shift in fundamental ways. Recruiting faculty members and giving them sufficient planning time and support as they initiate and refine their project-based teaching methods will be instrumental to the success of any institutional change initiative. In this session, participants will anticipate specific faculty development needs for project-based learning at their institutions. We will then explore options for engaging
and supporting faculty to use project-based learning with increasing degrees of effectiveness, with participants sharing successful strategies from their own institutions.

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**Project-Based Learning in the Humanities and Social Sciences**

Kristen Boudreau, Laura Hanlan

SL 402

This workshop, led by a research librarian and a humanist, will guide participants through the process of developing a course project assignment with significant content and methodology from the humanities or social sciences. Participants will explore how the project can be designed to include both their students’ needs, interests, and knowledge as well as local resources and community needs or opportunities. They will also be given one or more scenarios that support a project-based approach in the humanities and social sciences. Finally, they will be presented with an example project—a pedagogical role-playing game taking a transdisciplinary approach to an engineering problem—that was developed by engineering, science, and management students in a sophomore-level humanities course.

**Concurrent Sessions 3**

_Friday, June 26, 9:00 – 10:15 am_

**Beyond Student Learning: Using Outcomes Data from Projects to Address Program Evaluation and Accreditation Needs**

Paula Quinn, Kent Rissmiller

HL 154

Individuals who are responsible for running and evaluating programs or who directly support accreditation efforts could benefit by having access to information that shows how project work impacts student learning. The usefulness of student assessment data will vary, though, depending on how project work is assessed, how those assessment data are handled, and the extent to which program and institutional needs were considered
when assessment plans were developed. During this workshop, participants will develop an approach they can use to maximize the value of evidence of student learning through projects to address program evaluation and accreditation needs. A series of questions will be used to help participants identify institutional data needs, identify key stakeholders, and facilitate communication between “project-based learning people” and “program and accreditation people.” Participants will leave the workshop with a list of steps to follow that will be specifically tailored to their institution’s circumstances. This workshop does not focus on how to assess student learning. Instead, it focuses on ways to make the most of student assessment data. Institutions (and individual participants) will benefit most from this workshop if at least two team members attend the workshop together.

**Student Project Team Assessment and Feedback**

Dominic Golding, Rob Traver

HL 202

The session will help participants explore several ways to assess the efforts, approaches and outcomes of project-based learning teams, ranging from formal evaluation instruments to informal feedback and coaching. The advantages and disadvantages of these as they apply to different phases and challenges of PBL will be examined with vignettes and other prompts, instructor facilitation, and participant experience and query. Participants will come away with a set of tools and techniques that they can modify to meet their particular project-based learning needs.

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**Project-Based Learning as a First-Year and General-Education Strategy**

Geoffrey Pfeifer, Derren Rosbach

SL 411

Our project-based approach in the first year is designed to cultivate excitement for learning, develop critical thinking, and position students to succeed throughout their remaining time at the university and into their subsequent careers. This workshop introduces participants to the way we do project based courses in the first year and why we believe this is an important and successful strategy. WPI does not have an official general education strategy but these first year courses incorporate similar, if not identical, learning outcomes. We will introduce these along with the types of assignment we use to achieve these outcomes as well as incrementally move students towards a substantial project. We also discuss challenges involved in what many students (and perhaps instructors or administrators) see at first as an unstructured and uncomfortable departure from their past experiences. Come to this workshop prepared to ask questions about our program but also to work on your own. There will be time devoted to developing your own learning outcomes, assignments, activities or any other form of preparation that we might be able to help you with.

**Concurrent Sessions 4**

*Friday, June 26, 1:00 – 2:15 pm*

**Bringing About Institutional Change to Support Project-Based Learning**

Terry Rhodes

SL 411

How to manage/scaffold curricular and institutional change from practical, political perspectives – creating champions, building consensus, using limited resources wisely, etc. – will be the focus of this workshop. Drawing heavily on multiple resources developed through AAC&U (the Association of American Colleges and Universities) we will explore some change strategies and ideas in the context of the participant’s campus project goals to contribute to building the institutional action plan for implementing project-based learning. Specific resources will include GEMs (General Education Maps and Markers), signature work, STEM-related strategies, e-portfolios.
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Student Project Team Formation, Development and Mentoring

Holly Ault, Charlie Morse

SL 406

Project based learning is most often organized within student teams which are then, formally or informally, tasked with figuring out how to best function together. Many course variables can influence how successfully these student teams function including team selection, structured team development exercises and team evaluation models. This interactive workshop will help participants better understand predictable conflicts which can and will emerge and how conflict avoidance is most often at the heart of team dysfunction. Additionally participants will examine various faculty roles in supporting student team success before, during and after project based learning experiences.